



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Hugh R. Sharkey et al. Art Unit : Unknown
Serial No. : 10/712,063 Examiner : Unknown
Filed : November 14, 2003
Title : METHOD FOR TREATING INTERVERTEBRAL DISCS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

I. Disclosure of the Attached Form PTO-1449

Applicants submit the attached form PTO-1449 (13 pages). This application claims priority to the following U.S. patent applications referenced by Serial No.: 10/388,609, 09/707,627, 09/236,816, 09/162,704, 09/153,552, 08/881,525, 08/881,692, 08/881,527, 08/881,693, 08/881,694, 09/876,833, 09/876,832, 09/876,831, 10/624,894, 09/753,786, 09/022,688, 10/242,777, 09/340,065, 09/022,612, 09/776,231, 09/776,186, 09/272,806, 09/884,859, 09/792,628, 09/664,473, 08/696,051. All of the references were submitted to and/or cited by the Office in one or more of the priority applications and, therefore, are not provided in this application.

These references are provided for the sake of completeness and may be no more pertinent than or may be cumulative to references already supplied.

II. Disclosure of Patent Litigation of Related Patents

This application is related (by a claim of priority) to U.S. Pat. Nos. 5,980,504 ("the '504 patent") and 6,261,311 ("the '311 patent") that are being asserted by their owner Smith & Nephew against a company Arthrocare because of Arthrocare's SpineWand product and its use in a procedure called Nucleoplasty. Smith & Nephew filed a Complaint and Arthrocare answered the Complaint on August 7, 2003, and asserted a counterclaim that the '504 and '311 patents were unenforceable due to inequitable conduct (see Reference MI, paragraphs 37-39). A copy of Arthrocare's Answer and Counterclaim is submitted as Reference MI.

A. Characterizations of U.S. Pat. No. 5,433,739

Arthrocare alleges that one of the inventors and/or others involved with the prosecution of the application leading to the '504 and '311 patents misrepresented material information about

U.S. Pat. No. 5,433,739 (“the ’739 patent”) in comments made at col. 3, lines 56-58 of the ’311 patent and at col. 3, lines 23-25 of the ’504 patent. The characterizations of the ’739 patent identified by Arthrocare in the ’311 patent are also in the present application. To address the allegations related to the ’739 patent, Applicants offer the following remarks.

1. Statements in the ’311 Patent Identified by Arthrocare

Arthrocare identifies the statement that “neither embodiment of the devices of the ’739 patent . . . provide[s] for focal delivery of therapy to a selected local region within the disc or precise temperature control at the annulus” in the ’311 patent at col. 3, lines 56-58 as a misrepresentation of material information. Smith & Nephew, owner of the present application, disputes the allegation.

a) Focal Delivery of Therapy to a Selected Local Region

The statement in the ’311 patent is accurate. Neither embodiment of the devices of the ’739 patent “provide[s] for focal delivery of therapy to a selected local region within the disc.” The ’739 patent is directed to “heating the entire disc to a temperature significantly above body temperature. The heated disc will, in turn, heat the nerves which innervate its surface, and they will be destroyed or altered if the heat of the disc is elevated to an appropriately high temperature.”¹ Thus, rather than focal delivery of therapy to a selected local region within the disc, the ’739 patent describes “global heating” of the disc.

In addition to the ’739 patent discussing placing an electrode approximately at the center of the disc to achieve a global spread of heat throughout the disc,² the ’739 patent also describes depositing primary heat at different regions within the disc,³ and denervating neural structures on a “semi-global” basis.⁴ This global or semi-global heating or denervation is not “focal delivery of therapy to a selected local region within the disc.”

b) Precise Temperature Control

The statement made in the ’311 patent is accurate. Neither embodiment of the devices of the ’739 patent “provide[s] . . . precise temperature control at the annulus.” The ’739 patent

¹ The ’739 patent at col. 2, lines 52-60.

² The ’739 patent at col. 5, lines 58-65.

³ The ’739 patent at col. 9, lines 19-20 and 46-49, and col. 14, lines 61-68.

⁴ The ’739 patent at col. 5, lines 67-68.

describes monitoring temperature⁵ and states, as an objective, that an operator using multiple temperature monitors at remote “points in space relative to the primary RF lesion electrode” can control the exact temperature distribution⁶. However, the operator monitoring of the '739 patent does not provide precise temperature control at the annulus or anywhere else, which is exemplified by the description in the '311 patent of “the use of [temperature] sensors 48 and feedback control system 52, [to maintain] a tissue . . . at a desired temperature for a selected period of time without aberrant high temperature fluctuations”⁷. While the '739 patent describes that an “rf generator may also include . . . control circuitry to vary and monitor the radio frequency power delivered to the electrode,”⁸ the '739 patent does not describe that the control circuitry is used to control temperature.

2. Statements in the '504 Patent Identified by Arthrocare

Arthrocare identifies the statement that “the embodiments of the '739 patent do not . . . provide for delivery of material to treat the annulus, nor do the embodiments permit temperature monitoring at the posterior annulus” in the '504 patent at col. 3, lines 56-57 as a misrepresentation of material information. Smith & Nephew disputes the allegation as detailed below.

a) Delivery of Material to Treat the Annulus

The statement in the '504 patent is accurate. That is, the embodiments of the '739 patent do not even “provide for delivery of material to treat the annulus.” First, the '739 patent does not identify the anatomical structure of the annulus of the disc. Second, though the '739 patent describes devices that can deliver anesthetic, the anesthetic is used to assist in the process of identifying the proper disc to treat, not to treat the disc, much less to treat the annulus of the disc.⁹

b) Temperature Monitoring at the Posterior Annulus

The statement is accurate that the embodiments of the devices of the '739 patent do not “permit temperature monitoring at the posterior annulus.” The anatomy of the spine prohibits

⁵ The '739 patent at col. 5, lines 65-67.

⁶ The '739 patent at col. 4, lines 10-20.

⁷ The '311 patent at col. 19, lines 10-13,

⁸ The '739 patent at col. 5, lines 23-26.

⁹ The '739 patent at col. 14, lines 9-16.

access to the posterior annulus from a directly posterior position.¹⁰ The '739 patent states that "another way of measuring the temperature throughout the disc and at remote positions would be to have a side outlet probe."¹¹ As described, the side outlet probe emanates along a curved trajectory.¹² However, that curved trajectory (shown in dashed lines in Fig. 2 of the '739 patent) does not reach the posterior annulus, and thus the devices of the '739 patent do not permit temperature monitoring at the posterior annulus.

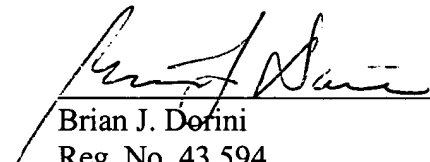
III. Prior Art Not Cited in Related Applications

Arthrocare also alleges that U.S. Pat. No. 5,486,161 was withheld from the Patent Office during prosecution of the '504 and '311 patents. This reference has been supplied to the Patent Office and the examiner is invited to consider the reference in the context of the examination of the present claims.

This statement is being filed before the receipt of a first Office action on the merits.
Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: MAR 31, 2004



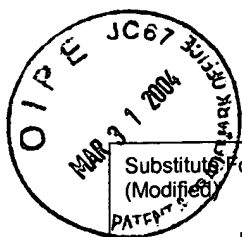
Brian J. Dorini
Reg. No. 43,594

Fish & Richardson P.C.
1425 K Street, N.W.
11th Floor
Washington, DC 20005-3500
Telephone: (202) 783-5070
Facsimile: (202) 783-2331
40196433.doc

¹⁰ The '504 patent at col. 2, lines 50-53.

¹¹ The '739 patent at col. 9, lines 37-39.

¹² The '739 patent at col. 9, lines 37-45 and col. 12, lines 56-65.



Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	164,184	06/08/75	Kidder			
	AB	300,155	06/10/84	Starr			
	AC	371,664	10/18/87	Brannan et al.			
	AD	452,220	05/12/91	Gunning			
	AE	1,314,855	09/02/19	Carpenter			
	AF	1,366,756	01/25/21	Wappler			
	AG	1,731,627	10/15/29	Johnson et al			
	AH	1,735,271	11/12/29	Groff			
	AI	1,814,791	07/14/31	Ende			
	AJ	1,908,583	05/09/33	Wappler			
	AK	1,916,722	07/04/33	Ende			
	AL	1,932,258	10/24/33	Wappler			
	AM	1,943,543	01/16/34	McFadden			
	AN	1,983,669	12/11/34	Kimble			
	AO	2,002,594	05/28/35	Wappler et al.			
	AP	2,004,559	06/11/35	Wappler et al.			
	AQ	2,050,904	08/11/36	Trice			
	AR	2,056,377	10/06/36	Wappler			
	AS	2,224,464	12/10/40	Wolf			
	AT	2,275,167	03/03/42	Bierman			
	AU	2,888,928	06/02/59	Seiger			
	AV	3,152,590	10/13/64	Rodriguez Zurdo et al.			
	AW	3,163,165	12/29/64	Isikawa			
	AX	3,460,539	08/12/69	Anhalt			
	AY	3,595,239	07/27/71	Petersen			
	AZ	3,655,032	04/11/72	Willis			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	BA	3,768,482	10/30/73	Shaw			
	BB	3,769,984	11/06/73	Muench			
	BC	3,801,766	04/02/74	Morrison			
	BD	3,815,604	06/11/74	O'Malley et al.			
	BE	3,828,780	08/13/74	Morrison			
	BF	3,870,047	03/11/75	Gonser			
	BG	3,901,242	08/26/75	Storz			
	BH	3,902,494	09/02/75	Haberlen et al.			
	BI	3,920,021	11/18/75	Hiltebrandt			
	BJ	3,920,022	11/18/75	Pastor			
	BK	3,938,527	02/17/76	Rioux et al.			
	BL	3,970,088	07/20/76	Morrison			
	BM	3,987,795	10/26/76	Morrison			
	BN	4,011,872	03/15/77	Komiya			
	BO	4,016,881	04/12/77	Roiux et al.			
	BP	4,034,762	07/12/77	Corsens et al.			
	BQ	4,040,426	08/09/77	Morrison			
	BR	4,060,086	11/29/77	Storz			
	BS	4,060,087	11/29/77	Hiltebrandt et al.			
	BT	4,060,088	11/29/77	Morrison			
	BU	4,116,198	09/26/78	Roos			
	BV	4,140,130	02/20/79	Storm III			
	BW	4,170,234	10/09/79	Graham			
	BX	4,181,131	01/01/80	Ogiu			
	BY	4,184,492	01/22/80	Meinke et al.			
	BZ	4,240,441	12/23/80	Khalil			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	CA	4,301,802	11/24/81	Poler			
	CB	4,411,266	10/25/83	Cosman			
	CC	4,418,692	12/06/83	Guay			
	CD	4,427,006	01/24/84	Nottke			
	CE	4,448,198	05/15/84	Turner			
	CF	4,478,822	10/23/84	Haslam et al.			
	CG	4,524,770	06/25/85	Orandi			
	CH	4,545,374	10/08/85	Jacobson			
	CI	4,559,951	12/24/85	Dahl et al.			
	CJ	4,562,838	01/07/86	Walker			
	CK	4,565,200	01/21/86	Cosman			
	CL	4,643,186	02/17/87	Rosen et al.			
	CM	4,646,737	03/03/87	Hussein et al.			
	CN	4,672,962	06/16/87	Hershenson			
	CO	4,682,596	07/28/87	Bales et al.			
	CP	4,688,569	08/25/87	Rabinowitz			
	CQ	4,699,157	10/13/87	Shonk			
	CR	4,712,559	12/15/87	Turner			
	CS	4,719,914	01/19/88	Johnson			
	CT	4,735,201	04/05/88	O'Reilly			
	CU	4,753,223	06/28/88	Bremer			
	CV	4,754,752	07/05/88	Ginsburg et al.			
	CW	4,765,331	08/23/88	Petruzzi et al.			
	CX	4,769,005	09/06/88	Ginsburg et al.			
	CY	4,784,161	11/15/88	Skalsky et al.			
	CZ	4,800,899	01/31/89	Elliott			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	DA	4,805,616	02/21/89	Pao			
	DB	4,811,743	03/14/89	Stevens			
	DC	4,823,791	04/25/89	D'Amelio et al.			
	DD	4,846,175	07/11/89	Frimberger			
	DE	4,860,744	08/29/89	Johnson et al.			
	DF	4,917,092	04/17/90	Todd et al.			
	DG	4,919,129	04/24/90	Weber et al.			
	DH	4,924,882	05/15/90	Donovan			
	DI	4,927,420	05/22/90	Newkirk et al.			
	DJ	4,936,301	06/26/90	Rexroth et al.			
	DK	4,943,290	07/24/90	Rexroth et al.			
	DL	4,950,267	08/21/90	Ishihara et al.			
	DM	4,955,378	09/11/90	Grasso			
	DN	4,976,711	12/11/90	Parins et al.			
	DO	5,007,908	04/16/91	Rydell			
	DP	5,013,312	05/07/91	Parins et al.			
	DQ	5,084,044	01/28/92	Quint			
	DR	5,084,043	01/28/92	Hertzmann et al.			
	DS	RE 33,925	05/12/92	Bales et al.			
	DT	5,122,138	06/16/92	Manwaring			
	DU	5,125,928	06/30/92	Parins et al.			
	DV	5,158,561	10/27/92	Rydell et al.			
	DW	5,163,938	11/17/92	Kambara et al.			
	DX	5,171,255	12/15/92	Rydell			
	DY	5,205,816	04/27/93	Dodson et al.			
	DZ	5,207,675	05/04/93	Canady			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	EA	5,211,625	05/18/93	Sakurai et al.			
	EB	5,241,972	09/07/93	Bonati			
	EC	5,254,121	10/19/93	Manevitz et al.			
	ED	5,273,524	12/28/93	Fox et al.			
	EE	5,277,696	01/11/94	Hagen			
	EF	5,281,213	01/25/94	Milder et al.			
	EG	5,281,218	01/25/94	Imran			
	EH	5,282,845	02/01/94	Bush et al.			
	EI	5,300,069	04/05/94	Hunsberger et al.			
	EJ	5,301,687	04/12/94	Wong et al.			
	EK	5,318,525	06/07/94	West et al.			
	EL	5,336,222	08/09/94	Durgin et al.			
	EM	5,364,839	11/15/94	Gerhart et al.			
	EN	5,383,876	01/24/95	Nardella			
	EO	5,383,923	01/24/95	Webster			
	EP	5,385,148	01/31/95	Lesh et al.			
	EQ	5,396,900	03/14/95	Slater et al.			
	ER	5,403,311	04/04/95	Abele et al.			
	ES	5,409,008	04/25/95	Svenson et al.			
	ET	5,421,819	06/06/95	Edwards et al.			
	EU	5,423,808	06/13/95	Edwards et al.			
	EV	5,423,811	06/13/95	Imran et al.			
	EW	5,423,815	06/13/95	Fugo			
	EX	5,423,882	06/13/95	Jackman et al.			
	EY	5,431,649	07/11/95	Mulier et al.			
	EZ	5,433,708	07/18/95	Nichols et al.			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	FA	5,437,664	08/01/95	Cohen et al.			
	FB	5,441,499	08/15/95	Fritzsche			
	FC	5,454,809	10/03/95	Janssen			
	FD	5,456,682	10/10/95	Edwards et al.			
	FE	5,458,597	10/17/95	Edwards et al.			
	FF	5,470,309	11/28/95	Edwards et al.			
	FG	5,472,426	12/05/95	Bonati et al.			
	FH	5,472,441	12/05/95	Edwards et al.			
	FI	5,487,385	01/30/96	Avitall			
	FJ	5,520,645	05/28/96	Imran et al.			
	FK	5,522,815	06/04/96	Durgin			
	FL	5,540,681	07/30/96	Strul et al.			
	FM	5,542,945	08/06/96	Fritzsche			
	FN	5,545,161	08/13/96	Imran			
	FO	5,545,193	08/13/96	Fleischman et al.			
	FP	5,569,244	10/29/96	Hahnen			
	FQ	5,569,245	10/29/96	Guglielmi et al.			
	FR	5,571,147	11/05/96	Sluijter et al.			
	FS	5,573,533	11/12/96	Strul			
	FT	5,582,609	12/10/96	Swanson et al.			
	FU	5,584,830	12/17/96	Ladd et al.			
	FV	5,601,572	02/11/97	Middleman et al.			
	FW	5,603,709	02/18/97	Johnson			
	FX	5,607,422	03/04/97	Smeets et al.			
	FY	5,637,090	06/10/97	McGee et al.			
	FZ	5,643,255	07/01/97	Organ			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	GA	5,673,707	10/07/97	Chandrasekaran			
	GB	5,676,662	10/14/97	Fleischhacker et al.			
	GC	5,680,860	10/28/87	Imran			
	GD	5,683,384	11/04/97	Gough et al.			
	GE	5,687,723	11/18/97	Avitall			
	GF	5,688,267	11/18/97	Panescu et al.			
	GG	5,693,050	12/02/97	Speiser			
	GH	5,694,945	12/09/97	Ben-Haim			
	GI	5,697,281	12/16/97	Eggers et al.			
	GJ	5,697,536	12/16/97	Eggers et al.			
	GK	5,697,882	12/16/97	Eggers et al.			
	GL	5,735,792	04/07/98	Vander Hoek et al.			
	GM	5,697,927	12/16/97	Imran et al.			
	GN	5,700,262	12/23/97	Acosta et al.			
	GO	5,738,683	04/14/98	Osypka			
	GP	5,741,245	04/21/98	Cozean et al.			
	GQ	5,743,903	04/28/98	Stern et al.			
	GR	5,762,626	06/09/98	Lundquist et al.			
	GS	5,766,153	06/16/98	Eggers et al.			
	GT	5,779,646	07/14/98	Koblish et al.			
	GU	5,779,699	07/14/98	Lipson			
	GV	5,782,795	07/21/98	Bays			
	GW	5,785,705	07/28/98	Baker			
	GX	5,797,903	08/25/98	Swanson et al.			
	GY	5,807,306	09/15/98	Shapland et al.			
	GZ	5,810,802	09/22/98	Panescu et al.			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	HA	5,836,875	11/17/98	Webster			
	HB	5,836,892	11/17/98	Lorenzo			
	HC	5,836,947	11/17/98	Fleischman et al.			
	HD	5,853,409	12/29/98	Swanson et al.			
	HE	5,857,991	01/12/99	Grothoff et al.			
	HF	5,860,951	01/19/99	Eggers et al.			
	HG	5,860,974	01/19/99	Abele			
	HH	5,861,002	01/19/99	Desai			
	HI	5,871,469	02/16/99	Eggers et al.			
	HJ	5,871,501	02/16/99	Leschinsky et al.			
	HK	5,873,855	02/23/99	Eggers et al.			
	HL	5,882,346	03/16/99	Pomeranz et al.			
	HM	5,885,217	03/23/99	Gisselberg et al.			
	HN	5,885,278	03/23/99	Fleischman			
	HO	5,888,198	03/30/99	Eggers et al.			
	HP	5,891,095	04/06/99	Eggers et al.			
	HQ	5,897,553	04/27/99	Mulier et al.			
	HR	5,902,272	05/11/99	Eggers et al.			
	HS	5,910,129	06/08/99	Koblish et al.			
	HT	5,916,158	06/29/99	Webster			
	HU	5,916,166	06/29/99	Reiss			
	HV	5,921,924	07/13/99	Avitall			
	HW	5,935,123	08/10/99	Edwards et al.			
	HX	5,980,471	11/09/99	Jafari			
	HY	5,980,504	11/09/99	Sharkey et al.			
	HZ	5,991,650	11/23/99	Swanson et al.			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	IA	5,993,424	11/30/99	Lorenzo et al.			
	IB	6,004,319	12/21/99	Goble et al.			
	IC	6,007,570	12/28/99	Sharkey et al.			
	ID	6,010,493	01/04/00	Snoke			
	IE	6,014,579	01/11/00	Pomeranz et al.			
	IF	6,017,361	01/25/00	Mikus et al.			
	IG	6,023,638	02/08/00	Swanson			
	IH	6,033,397	03/07/00	Laufer et al.			
	II	6,036,688	03/14/00	Edwards			
	IJ	6,048,329	04/11/00	Thompson et al.			
	IK	6,048,340	4/11/00	Miyagi			
	IL	6,053,172	04/25/00	Hovda et al.			
	IM	6,056,744	05/02/00	Edwards			
	IN	6,073,051	06/06/00	Sharkey et al.			
	IO	6,079,417	06/27/00	Fugo			
	IP	6,093,185	07/25/00	Ellis et al.			
	IQ	6,095,149	08/01/00	Sharkey et al.			
	IR	6,099,514	08/08/00	Sharkey et al.			
	IS	6,102,046	08/15/00	Weinstein et al.			
	IT	6,105,581	08/22/00	Eggers et al.			
	IU	6,106,522	08/22/00	Fleischman et al.			
	IV	6,113,591	09/05/00	Whayne et al.			
	IW	6,122,549	09/19/00	Sharkey et al.			
	IX	6,126,682	10/03/00	Sharkey et al.			
	IY	6,135,999	10/24/00	Fanton et al.			
	IZ	6,165,139	12/26/00	Damadian			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	JA	6,168,593	01/02/01	Sharkey et al.			
	JB	6,171,306	01/09/01	Swanson et al.			
	JC	6,179,836	01/30/01	Eggers et al.			
	JD	6,203,525	03/20/01	Whayne et al.			
	JE	6,217,528	04/17/01	Koblish et al.			
	JF	6,224,592	05/01/01	Eggers et al.			
	JG	6,241,754	06/05/01	Swanson et al.			
	JH	6,245,061	06/12/01	Panescu et al.			
	JI	6,245,069	06/12/01	Gminder			
	JJ	6,261,311	07/17/01	Sharkey et al.			
	JK	6,264,651	07/24/01	Underwood et al.			
	JL	6,270,476	08/07/01	Santoianini et al.			
	JM	6,273,886	08/14/01	Edwards et al.			
	JN	6,277,112	08/21/01	Underwood et al.			
	JO	6,283,960	09/04/01	Ashley			
	JP	6,283,961	09/04/01	Underwood et al.			
	JQ	6,287,306	09/11/01	Kroll et al.			
	JR	6,290,715	09/18/01	Sharkey et al.			
	JS	2001/0023348	09/20/01	Ashley et al.			
	JT	2001/0029370	10/11/01	Hodva et al.			
	JU	6,304,785	10/16/01	McCreery et al.			
	JV	2001/0031963	10/18/01	Sharkey et al.			
	JW	6,308,091	10/23/01	Avitall			
	JX	6,332,880	12/25/01	Yang et al.			
	JY	2002/0019626	02/14/02	Sharkey et al.			
	JZ	2002/0022830	02/21/02	Sharkey et al.			

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

	KA	6,355,032	03/12/02	Hovda et al.			
	KB	6,379,350	04/30/02	Sharkey et al.			
	KC	6,416,508	07/09/02	Eggers et al.			
	KD	6,428,512	08/06/02	Anderson et al.			
	KE	6,440,127	08/27/02	McGovern et al.			
	KF	6,440,129	08/27/02	Simpson			
	KG	2002/0120259	08/29/02	Lettice et al.			
	KH	6,461,357	10/08/02	Sharkey et al.			
	KI	2002/0188284	12/12/02	To et al.			
	KJ	2002/0188291	12/12/02	Uchida et al.			
	KK	2003/0014050	01/16/03	Sharkey et al.			
	KL	6,547,810	04/15/03	Sharkey et al.			
	KM	6,562,028	05/13/03	Nield et al.			
	KN	6,604,003	08/05/03	Fredricks et al.			
	KO	6,638,276	10/28/03	Sharkey et al.			
	KP	6,645,203	11/11/03	Sharkey et al.			
	KQ	6,645,204	11/11/03	Sharkey et al.			
	KR	6,648,884	11/18/03	To et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	KS	2,188,668	11/16/95	CA				
	KT							
	KU	3918316	03/22/90	DE				
	KV	38 38 840	05/23/90	DE			Abstract Yes	
	KW	41 08 269	06/17/92	DE			Abstract Yes	
	KX	44 25 015	01/25/96	DE			Abstract Yes	
	KY	196 30 601	02/06/97	DE			Abstract Yes	

Examiner Signature

Date Considered

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit To be assigned

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	LA	0 013 605	07/23/80	EPO				
	LB	0 257 116	03/02/88	EPO				
	LC	0 274 705	07/20/88	EPO			Abstract Yes	
	LD	0 392 837	10/17/90	EPO				
	LE	0 407 057	01/09/91	EPO				
	LF	0 439 263	07/31/91	EPO				
	LG	0 521 595	01/07/93	EPO				
	LH	0 648 475	04/19/95	EPO				
	LI	0 682 910	11/22/95	EPO			Abstract Yes	
	LJ	0 737 487	10/16/96	EPO				
	LK	2 313 949	01/07/77	FR				
	LL	1,583,397	01/28/81	GB				
	LM	2,160,102	12/18/85	GB				
	LN	WO 81/03271	11/26/81	WIPO				
	LO	WO 82/02488	08/05/82	WIPO				
	LP	WO 84/03829	10/11/84	WIPO				
	LQ	WO 92/05828	04/16/92	WIPO				
	LR	WO 93/15664	08/19/93	WIPO				
	LS	WO 94/10921	05/26/94	WIPO				
	LT	WO 95/10225	04/20/95	WIPO				
	LU	WO 95/10321	04/20/95	WIPO				
	LV	WO 95/10981	04/27/95	WIPO				
	LW	WO 96/00036	01/04/96	WIPO				
	LX	WO 96/00040	01/04/96	WIPO				
	LY	WO 96/29946	10/03/96	WIPO				
	LZ	WO 96/34571	11/07/96	WIPO				

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 14170-038004	Application No. 10/712,063
Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))		Applicant Hugh R. Sharkey et al.	
		Filing Date November 14, 2003	Group Art Unit

	MA	WO 96/37146	11/28/96	WIPO				
	MB	WO 96/39085	12/12/96	WIPO				
	MC	WO 96/39966	12/19/96	WIPO				
	MD	WO 98/11944	03/26/98	WIPO				
	ME	WO 98/34558	08/13/98	WIPO				
	MF	WO 99/18878	04/22/99	WIPO				
	MG	WO 99/47058	09/23/99	WIPO				
	MH	WO 99/51149	10/14/99	WIPO				

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	MI	Answer and Counterclaims of Defendant Arthrocare Corporation, filed 8/7/03, in re Smith & Nephew, Inc. v. Arthrocare Corporation (No. 03-2214 MaA, USDC, Western District of Tennessee, Western Division.
	MJ	Fine, B.S., and Yanoff, Y., Ocular Histology, 2 nd Ed., pp. 130-159, Harper & Row, Hagerstown, Maryland, 1979.
	MK	Cosman, E.R., and Cosman, B.J., "Methods of Making Nervous System Lesions," <u>Neurosurgery</u> , R.H. Wilkins and S.S. Rengachary, eds., Chapter 337, pp. 2490-2499
	ML	Elsasser et al., "An instrument for transurethral resection without leakage of current," <u>Medizinal-Markt/Acta Medico-technica</u> , Vol. 24 (4), 1976 129-134.
	MM	"Lase®... The Next Step in Conservative Therapy for Patients with Contained Herniated Discs," Clarus Medical, reprinted from http://www.clarus-medical.com/lase.htm , 5 pages
	MN	"LASE Patient Information", Clarus medical, reprinted from http://www.clarus-medical.com/lase.htm , 5 pages
	MO	Tobler et al., "Improved Outcome in the Treatment of Trigeminal Neuralgia by Percutaneous Stereostatic Rhizotomy with a New, Curved Tip Electrode," <u>Neurosurgery</u> , 12 (3), 1983, 313-317.
	MP	Zinn, K.M. and Mockel-Pohl, S., "The Lens and Zonules," <u>Ocular Fine Structure for the Clinician</u> , Vol. 13, No. 3, 1973, pp. 143-155

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	